

UNIT 3

SECTION 1

Answer the following questions

Q.1: What is an editor?

A 1: A text **editor** is a program that helps you write plain text (without any formatting) and save it to a file. A good example is the Notepad **editor** on Windows.

Q.2: What do you understand by a web browser?

A 2: A browser is an application program with a graphical user interface for displaying HTML files, used to navigate the World Wide Web which provides a way to look at and interact with all the information on the World Wide Web.

Q.3: What are the major types of browser available today?

A 3: The two most popular browsers are Microsoft Internet Explorer and Firefox. Other major browsers include Google Chrome, Apple Safari and Opera.

Q.4: What is the advantage of using Javascript over HTML?

A 4: Advantages:

- a) JavaScript gives HTML designers a programming tool with a very simple syntax. So that the designers can put small “snippets” of code into their HTML pages.
- b) JavaScript can put dynamic text into an HTML page.
- c) can react to events. For eg. a JavaScript can be set to execute when something happens, like when a page has finished loading or when a user clicks on an HTML element.
- d) JavaScript can read and change the contents of an HTML element.
- e) JavaScript can be used to validate data of the form before it is submitted to a server. It saves the server from extra processing.

Q.5: What are the steps needed to create and run a simple program using JavaScript?

A 5:

```
<html>
<head>
<title>My Javascript Page</title>
</head>
<body>
<script type="text/javascript">
alert("Welcome to my world!!!");
</script>
</body>
</html>
```

Output: Welcome to my world!!!

Example explained

How to save and run your first program in JavaScript

1. Open any editor such as notepad and write the program

2. Save the program with .html extension in a proper folder or subfolder on a drive like
C:\JavaScript\myprograms.
3. Open the web browser like internet explorer or Mozilla Firefox
4. Open the file you have created and saved in step 2, and execute the program. For eg. execute C:\JavaScript\firstprogram.html

Where C is the drive, JavaScript is the folder name and firstprogram.html is the name of

program which is saved in the JavaScript folder

To indicate that the given code is written in JavaScript, you need to place the code within

`<script>` `</script>` HTML tags.

Q. 6: Which attribute of the `<script>` tag helps you include an external JavaScript file?

A 6 : The src attribute specifies the URL of an external script file.

Syntax:

```
<script src="URL">
```

Q. 7: What are the three ways in which JavaScript can be included?

A 7 : JavaScript can be included into a web page using various approaches including inline code, internal scripts and external JavaScript files.

Q. 8: JavaScript is “interpreted” - what does this imply?

A 8: **JavaScript** is an interpreted computer programming language.

- a) It was originally implemented as a part of web browser so that client-side scripts could interact with the user, control the browser, communicate asynchronously, and alter the contents of the document.
- b) JavaScript is not useful as a standalone language, but is designed for easy embedding in other products and applications, such as web browsers.
- c) JavaScript contains a core set of objects such as Array, Date, Math, and a core set of language elements like operators, control structures, and statements.

Q. 9: Explain the role of case sensitivity in JavaScript.

A 9: JavaScript is case sensitive i.e., upper case letter and lower case letter has different meaning. For example, the word “alert” has a lower case “a”. So, if we type the word with an uppercase “A” then JavaScript will show an error and the alert box will not be displayed.

Q. 10: How to use multiple line comments in Javascript.

A 10: Multiline comments begin with `/*` and ends with `*/`

e.g., `/* This is a multi line comment`

`and may continue across multiple lines */`

Q. 11. Fill in the blanks

- (a) A file which ends with .js is an **javascript** file.
- (b) JS programs are included within **<script>** & **</script>** tag of a HTML document.
- (c) Generally HTML is preferred for creating **content of a web page** while CSS is preferred for **design of a webpage** and JavaScript is preferred for **define the interactive elements of a web pae.**
- (d) JavaScript Syntax is a set of **rules** that define a structured JavaScript.
- (e) Comments are used to **improve the readability of program and will be ignored by the interpreter** in JavaScript program.

UNIT 3

SECTION 5

Answer the following questions:

Q. 1: What are different types of window Objects?

A. 1: The different types of window Objects are: Location object, History object and document object.

Q. 2: Explain any three features of Window of window.open.

A. 2. Three features of Window of window.open are as follows:

- i. **Fullscreen:** Specifies if window should be opened in full screen mode.
- ii. **Height:** Specifies the height of the window.
- iii. **Location:** Specifies if the location bar of the window should be included.

Q. 3: What is an event?

A. 3: Events are actions that can be detected by **JavaScript**, and the **event** object gives information about the **event** that has occurred. Sometimes we want to execute a **JavaScript** when an **event** occurs, such as when a user clicks a button.

Q. 4: Write any three location object properties.

A. 4: Three location object properties are as follows:

- i. **href:** Sets or returns the entire URL.
- ii. **pathname:** Sets or returns the path name of a URL
- iii. **protocol:** Sets or returns the protocol of a URL

Q. 5: Define location object methods.

A. 5: Following are the three location object methods:

- i. **assign()** Loads a new document
- ii. **reload()** Reloads the current document
- iii. **replace()** Replaces the current document with a new one

Q. 6: Write any two location object methods.

A. 6: Following are the two location object methods:

- i. **assign()** Loads a new document
- ii. **reload()** Reloads the current document

Q. 7: Define any history object method.

A. 7: go(): Loads a specific URL from the history list

Q. 8: Write any property of history object.

A. 8: length: Returns the number of URLs in the history list.

Q. 9: Explain back() and forward() method of history object.

A. 9: back(): Loads the previous URL in the history list
forward(): Loads the next URL in the history list

Q. 10: What is onerror event?

A. 10: onerror: Fires when a JavaScript error occurs. By returning true inside this event, JavaScript errors on the page (if any) are suppressed, with no error messages popping up.

Q. 11: What is onfocus event?

A. 11: onfocus: Fires when the focus is set on the current window.

Q. 12: What is onload event?

A. 12: onload Fires when the page has finished loading, including images. This is a popular event to use to run some JavaScript once everything on the page has loaded/ is available:

```
window.onload=function(){  
  runsomefunction();  
}
```

Q. 13: Differentiate between innerWidth and innerHeight properties of the Window.

A. 13: **innerWidth** returns the width, in pixels, of the window's viewable content area, which does not include any toolbar, scrollbars etc. whereas **innerHeight** returns the height, in pixels, of the window's viewable content area, which does not include any toolbar, scrollbars etc.

Q. 14: What is length property of the Window object.

A. 14: length Returns the number of frames contained in the window, which includes IFRAMEs.

Q. 15: Write parent property of the Window object.

A. 15: **parent:** Reference to the parent frameset window of the current window, assuming that current window is a frame. Otherwise, it simply refers to current window.